AUS920010579US1   **Patent Application**

CLAIMS

What is claimed is:

1. A method of providing preferred location specific content for interleaving into broadcast content, the method comprising the steps of:

   storing user preferences in user preference records in a content server;

   storing location specific content (LSC) in LSC records in the content server;

   receiving, from a digital communications network, a location of a user client device;

   determining local date and time at the location of the user client device;

   creating preferred location specific content (PLSC) records in the content server, the creating carried out in dependence upon the LSC records, the user preferences, the location of the user client device, and the local date and time at the location of the client device; and

   downloading the PLSC records through the digital communications network from the content server to the user client device.

2. The method of claim 1 wherein storing LSC further comprises receiving user preferences entered by a user through a browser.

3.   The method of claim 1 wherein storing LSC further comprises data mining LSC from vendors' customer databases.

4.   The method of claim 1 wherein user preference records comprise data elements comprising priority and user preferences.

5.   The method of claim 1 wherein LSC records comprise data elements comprising digital content, content type, target location, duration, relevant date range, and relevant time range.

6.   The method of claim 1 wherein PLSC records comprise data elements comprising digital content, duration, and user identification.

7.   The method of claim 1 wherein creating PLSC records further comprises selecting LSC records in dependence upon the user preferences, the location of the user client device, and the local date and time at the location of the client device.

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8.   The method of claim 1 wherein creating PLSC records further comprises selecting LSC records having content types, target locations, and relevant date and time ranges that match, for a user, the user preferences from a user preference record for the user, the location of the user client device associated with the user, and the local date and time at the location of the user client device associated with the user.

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9.   The method of claim 1 wherein downloading the PLSC records to the user
      client device further comprises downloading the PLSC to the user client
      device at the network address for the user client device within the digital
      communications network, wherein the PLSC so downloaded comprises digital
5   content and duration.

10.   The method of claim 9 wherein the PLSC records to be downloaded include
      priority, and downloading the PLSC to the user client device further
      comprises:

5   downloading the PLSC to the user client device in dependence upon priority;
      and

      excluding priority from the downloaded PLSC records.

11.   The method of claim 1 wherein downloading the PLSC to the user client
      device further comprises downloading the PLSC to the user client device at
      the address with which the user client device is associated in the digital
      communications network, wherein the PLSC so downloaded comprises digital
5   content, duration, and priority.

12.   The method of claim 1 further comprising periodically repeating the steps of
      receiving a location, determining local date and time, creating PLSC records,
      and downloading the PLSC records to the user client device.

13.   The method of claim 1 comprising the further steps of:

storing more than one indication of the location of the user client device and, associated with each such indication of location of the user client device, the local time when the user client device was at the location; and

calculating, in dependence upon the stored indications of location and time, a speed of the user client device and a direction of travel of the user client device;

wherein creating preferred location specific content (PLSC) records in dependence upon the user preferences, the location of the user client device, and the local date and time at the location of the client device further comprises creating preferred location specific content (PLSC) records in dependence upon the user preferences, the location of the user client device, the local date and time at the location of the client device, and the speed and direction of travel of the user client device.

14.   The method of claim 13 comprising the further steps of:

periodically repeating the steps of receiving a location, determining local date and time, creating PLSC records, and downloading the PLSC records to the user client device; and

calculating a repetition rate for the step of periodically repeating, wherein calculating a repetition rate is carried out in dependence upon the speed of the user client device.

15. The method of claim 13 comprising the further steps of:

calculating a calculated area of relevance; and

5   selecting LSC records having target locations within the calculated area of relevance.

16. The method of claim 15 wherein calculating a calculated area of relevance further comprises projecting where the client device will probably be for a relevant period of time, wherein the projecting is accomplished in dependence upon the speed and direction of the client device.

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17.   A system for providing preferred location specific content for interleaving into

       broadcast content, the system implemented upon a content server,

       the content server comprising at least one computer processor and computer

       memory, the processor coupled to the computer memory,

5   the content server coupled for data communications through a digital

       communications network to a user client device,

       the user client device associated in the content server with a particular user,

       the particular user represented in the content server by a user account record,

       the user account record comprising data elements comprising:

10   a user identification identifying the user, and

       a network address for the user's user client device within the digital

       communications network,

       the user client device associated in the content server with an address in the

       digital communications network;

15   the digital communications network having the capability of providing the

       present location of the user client device,

       the system comprising:

20   means for storing user preferences in user preference records;

       means for storing location specific content (LSC) in LSC records;

       means for receiving, from the digital communications network, a location of

25   the user client device;

means for determining local date and time at the location of the user client device;

30   means for creating preferred location specific content (PLSC) records in dependence upon the LSC records, the user preferences, the location of the user client device, and the local date and time at the location of the client device; and

35   means for downloading the PLSC records through the digital communications network to the user client device.

18. The system of claim 17 wherein means for storing LSC further comprises means for receiving user preferences entered by a user through a browser.

19. The system of claim 17 wherein means for storing LSC further comprises means for data mining LSC from vendors' customer databases.

20. The system of claim 17 wherein user preference records comprise data elements comprising priority and user preferences.

21. The system of claim 17 wherein LSC records comprise data elements comprising digital content, content type, target location, duration, relevant date range, and relevant time range.

22. The system of claim 17 wherein PLSC records comprise data elements comprising digital content, duration, and user identification.

23.   The system of claim 17 wherein means for creating PLSC records further comprises means for selecting LSC records in dependence upon the user preferences, the location of the user client device, and the local date and time at the location of the client device

24.   The system of claim 17 wherein means for creating PLSC records further comprises means for selecting LSC records having content types, target locations, and relevant date and time ranges that match, for a user, the user preferences from a user preference record for the user, the location of the user client device associated with the user, and the local date and time at the location of the user client device associated with the user.

25.   The system of claim 17 wherein means for downloading the PLSC records to the user client device further comprises means for downloading the PLSC to the user client device at the network address for the user client device within the digital communications network, wherein the PLSC so downloaded comprises digital content and duration.

26.   The system of claim 25 wherein the PLSC records to be downloaded include priority, and means for downloading the PLSC to the user client device further comprises:

means for downloading the PLSC to the user client device in dependence upon priority; and

means for excluding priority from the downloaded PLSC records.

27.   The system of claim 17 wherein means for downloading the PLSC to the user client device further comprises means for downloading the PLSC to the user client device at the address with which the user client device is associated in the digital communications network, wherein the PLSC so downloaded comprises digital content, duration, and priority.

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28.   The system of claim 17 further comprising means for periodically repeating the steps of receiving a location, means for determining local date and time, means for creating PLSC records, and means for downloading the PLSC records to the user client device.

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29.   The system of claim 17 further comprising:

means for storing more than one indication of the location of the user client device and, associated with each such indication of location of the user client device, the local time when the user client device was at the location; and

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means for calculating, in dependence upon the stored indications of location and time, a speed of the user client device and a direction of travel of the user client device;

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wherein means for creating preferred location specific content (PLSC) records in dependence upon the user preferences, the location of the user client device, and the local date and time at the location of the client device further comprises means for creating preferred location specific content (PLSC)

15   records in dependence upon the user preferences, the location of the user client device, the local date and time at the location of the client device, and the speed and direction of travel of the user client device.

30.   The system of claim 29 further comprising:

means for periodically repeating the steps of receiving a location, determining local date and time, creating PLSC records, and downloading the PLSC

5   records to the user client device; and

means for calculating a repetition rate for the step of periodically repeating, wherein means for calculating a repetition rate functions in dependence upon the speed of the user client device.

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31.   The system of claim 29 further comprising:

means for calculating a calculated area of relevance; and

5   means for selecting LSC records having target locations within the calculated area of relevance.

32.   The system of claim 30 wherein means for calculating a calculated area of
       relevance further comprises means for projecting where the client device will
       probably be for a relevant period of time, wherein the means for projecting
       operates in dependence upon the speed and direction of the client device.

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33.   A computer program product for providing preferred location specific content
        for interleaving into broadcast content, the computer program product
        implemented upon a content server,
        the content server comprising at least one computer processor and computer
5   memory, the processor coupled to the computer memory,
        the content server coupled for data communications through a digital
        communications network to a user client device,
        the user client device associated in the content server with a particular user,
        the particular user represented in the content server by a user account record,
10   the user account record comprising data elements comprising:
        a user identification identifying the user, and
        a network address for the user's user client device within the digital
        communications network,
        the user client device associated in the content server with an address in the
15   digital communications network;
        the digital communications network having the capability of providing the
        present location of the user client device,

        the computer program product comprising:
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        a recording medium;

        means, recorded on the recording medium, for storing user preferences in user
        preference records;
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        means, recorded on the recording medium, for storing location specific
        content (LSC) in LSC records;

30   means, recorded on the recording medium, for receiving, from the digital communications network, a location of the user client device;

means, recorded on the recording medium, for determining local date and time at the location of the user client device;

35   means, recorded on the recording medium, for creating preferred location specific content (PLSC) records in dependence upon the LSC records, the user preferences, the location of the user client device, and the local date and time at the location of the client device; and

40   means, recorded on the recording medium, for downloading the PLSC records through the digital communications network to the user client device.

34.   The computer program product of claim 33 wherein means, recorded on the recording medium, for storing LSC further comprises means, recorded on the recording medium, for receiving user preferences entered by a user through a browser.

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35.   The computer program product of claim 33 wherein means, recorded on the recording medium, for storing LSC further comprises means, recorded on the recording medium, for data mining LSC from vendors' customer databases.

36.   The computer program product of claim 33 wherein user preference records comprise data elements comprising priority and user preferences.

37. The computer program product of claim 33 wherein LSC records comprise data elements comprising digital content, content type, target location, duration, relevant date range, and relevant time range.

38. The computer program product of claim 33 wherein PLSC records comprise data elements comprising digital content, duration, and user identification.

39. The computer program product of claim 33 wherein means, recorded on the recording medium, for creating PLSC records further comprises means, recorded on the recording medium, for selecting LSC records in dependence upon the user preferences, the location of the user client device, and the local date and time at the location of the client device.

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40. The computer program product of claim 33 wherein means, recorded on the recording medium, for creating PLSC records further comprises means, recorded on the recording medium, for selecting LSC records having content types, target locations, and relevant date and time ranges that match, for a user, the user preferences from a user preference record for the user, the location of the user client device associated with the user, and the local date and time at the location of the user client device associated with the user.

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41. The computer program product of claim 33 wherein means, recorded on the recording medium, for downloading the PLSC records to the user client device further comprises means, recorded on the recording medium, for downloading the PLSC to the user client device at the network address for the user client device within the digital communications network, wherein the PLSC so downloaded comprises digital content and duration.

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42.   The computer program product of claim 41 wherein the PLSC records to be
        downloaded include priority, and means, recorded on the recording medium,
        for downloading the PLSC to the user client device further comprises:

5   means, recorded on the recording medium, for downloading the PLSC to the
        user client device in dependence upon priority; and

        means, recorded on the recording medium, for excluding priority from the
        downloaded PLSC records.

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43.   The computer program product of claim 33 wherein means, recorded on the
        recording medium, for downloading the PLSC to the user client device further
        comprises means, recorded on the recording medium, for downloading the
        PLSC to the user client device at the address with which the user client device
5   is associated in the digital communications network, wherein the PLSC so
        downloaded comprises digital content, duration, and priority.

44.   The computer program product of claim 33 further comprising means,
        recorded on the recording medium, for periodically repeating the steps of
        receiving a location, means, recorded on the recording medium, for
        determining local date and time, means, recorded on the recording medium,
5   for creating PLSC records, and means, recorded on the recording medium, for
        downloading the PLSC records to the user client device.

45.   The computer program product of claim 33 further comprising:

means, recorded on the recording medium, for storing more than one indication of the location of the user client device and, associated with each such indication of location of the user client device, the local time when the user client device was at the location; and

means, recorded on the recording medium, for calculating, in dependence upon the stored indications of location and time, a speed of the user client device and a direction of travel of the user client device;

wherein means, recorded on the recording medium, for creating preferred location specific content (PLSC) records in dependence upon the user preferences, the location of the user client device, and the local date and time at the location of the client device further comprises means, recorded on the recording medium, for creating preferred location specific content (PLSC) records in dependence upon the user preferences, the location of the user client device, the local date and time at the location of the client device, and the speed and direction of travel of the user client device.

46.   The system of claim 45 further comprising:

means, recorded on the recording medium, for periodically repeating the steps of receiving a location, determining local date and time, creating PLSC records, and downloading the PLSC records to the user client device; and

means, recorded on the recording medium, for calculating a repetition rate for the step of periodically repeating, wherein means for calculating a repetition rate functions in dependence upon the speed of the user client device.

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47.   The computer program product of claim 45 further comprising:

means, recorded on the recording medium, for calculating a calculated area of relevance; and

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means, recorded on the recording medium, for selecting LSC records having target locations within the calculated area of relevance.

48.   The computer program product of claim 47 wherein means for calculating a calculated area of relevance further comprises means, recorded on the recording medium, for projecting where the client device will probably be for a relevant period of time, wherein the means for projecting operates in

5   dependence upon the speed and direction of the client device.